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# ULTRAVIOLET SPECTROSCOPY OF SELECTED ASTRONOMICAL SOURCES

(NASA Research Grant No. NAG 5-71)

Final Technical Report

1/1/80-1/31/96

by

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The period of this grant covered nearly the whole scientific lifetime of the International Ultraviolet Explorer. Ultraviolet spectrophotometry was obtained for a wide variety of hot stars, and the results published in the following papers:

1. Schönberner, D., Drilling, J.S., Lynas-Gray, A. E., and Heber, U., "UV Fluxes and Effective Temperatures of Extreme Helium Stars," 1982, NASA CP-2238, p. 593.
2. Drilling, J.S., and Schönberner, D., "The Hot Components of Hydrogen-Deficient Binaries," 1982, NASA CP-2238, p. 546.
3. Drilling, J.S., and Schönberner, D., "The Hot Component of KS Persei," 1982, *Astron. Astrophys.* 113, L22.
4. Schönberner, D., and Drilling, J.S., "On the Nature of Upsilon Sagittarii," 1983, *Ap. J.* 268, 225.
5. Schönberner, D., and Drilling, J.S., "LSS 4300, A Hot Counterpart of Upsilon Sgr and KS Per?," 1984, *Ap. J.* 276, 229.
6. Drilling, J.S., Schönberner, D., Heber, U., and Lynas-Gray, A.E., "Spectrophotometry of Extreme Helium Stars: UV Fluxes and Effective Temperatures," 1984, *Ap. J.* 278, 224.
7. Schönberner, D., and Drilling, J.S., "Effective Temperatures and Luminosities of Very Hot O-Type Subdwarfs," 1984, *Ap. J.* 278, 702.
8. Drilling, J.S., and Schönberner, D., "The HR Diagram of O-Type Subdwarfs," 1984, *Proceedings of IAU Symposium No. 105*, p. 219.
9. Drilling, J.S., Holberg, J.B., and Schönberner, D., "Far Ultraviolet Spectroscopy of Two Very Hot O-Type Subdwarfs," 1984, *Ap. J.* 283, L67.
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14. Drilling, J.S., "LSS 2018: A Double-Lined Spectroscopic Binary with an Extremely Large Reflection Effect," 1985, *Ap. J.* 294, L107.
15. Drilling, J.S., "Basic Data on Hydrogen-Deficient Stars," 1986, *Proc. IAU Colloquium No. 87*, p. 9 (Review).
16. Heber, U., Jonas, G., and Drilling, J.S., "High Resolution Spectroscopy of Six New Extreme Helium Stars," 1986, *Proc. IAU Colloquium No. 87*, p. 67.

17. Heber, U., Drilling, J.S., and Husfeld., D., "UV and Visual Spectroscopy of Nine Extremely Helium-Rich Subluminous O Stars", 1986, in Proc. IAU Colloquium No. 87, p. 345.
18. Husfeld, D., Heber, U., and Drilling, J.S., "NLTE Analysis of Three Extremely Helium Rich O-Type Subdwarfs," 1986, Proc. IAU Colloquium No. 87, p. 353.
19. Drilling, J.S., "A Spectroscopic and Photometric Survey of OB+ Stars, 1987, Proc. IAU Colloquium No. 95, p. 489.
20. Heber, U., Werner, K., and Drilling, J.S., "High Resolution Spectroscopy of Central Stars of Planetary Nebulae: LSS 1362," 1987, Proc. IAU Colloquium No. 95, p. 595.
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27. Drilling, J.S. 1994, "The MK Process and OB<sup>+</sup> Stars", in *The MK Process at 50 Years*, C.J. Corbally, R.O. Gray, and R.F. Garrison (eds.), p. 57.
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